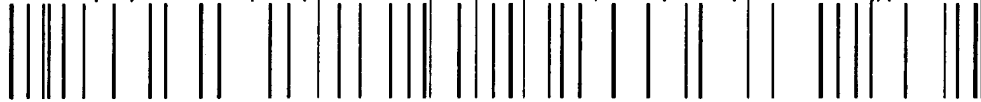


PATENT

Attorney Docket No: BRI/023

Amendments to the Claims

The following listing of claims will replace all prior  
very previously presented, claim applications for use in  
mining or blasting and having firing-readiness diagnostics,



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## PATENT

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Amendments to the Claims

The following listing of claims will replace all prior

Listing of Claims:

1. (previously presented) An electronic detonator for use in and/or programmed to perform one or more firing-readiness diagnostics on said electronic detonator.
2. (withdrawn) The electronic detonator of claim 1, wherein said igniter includes an ignition element, and said electronic circuitry comprises a resistance check module.
3. (previously presented) The electronic detonator of claim 1, wherein said igniter includes an ignition element, and said electronic circuitry comprises a continuity check module.
4. (amended) The electronic detonator of claim 3, wherein said electronic detonator includes an [[ASIC]] application-specific integrated circuit that contains said electronic circuitry.
5. (previously presented) The electronic detonator of claim 4, wherein said igniter is hermetically sealed, and said ignition element is a bridgewire.
6. (withdrawn) The electronic detonator of claim 1, wherein said igniter includes a firing capacitor, and said electronic circuitry is configured and/or programmed to verify that the firing capacitor has a capacitance above or below a certain value.
7. (previously presented) The electronic detonator of claim 1, wherein said igniter includes a firing capacitor, and said electronic circuitry is configured and/or programmed to verify that the firing capacitor has a capacitance above a first value and below a second value.
8. (canceled)
9. (withdrawn) The electronic detonator of claim 7, wherein said igniter further includes an ignition element, and said electronic circuitry includes a resistance check module.
10. (previously presented) The electronic detonator of claim 7, wherein said igniter further includes an ignition

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Amendments to the Claims

The following listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (previously presented) An electronic detonator for use in mining or blasting and having firing-readiness diagnostics, comprising an igniter and electronic circuitry configured and/or programmed to perform one or more firing-readiness diagnostics on said electronic detonator.
2. (withdrawn) The electronic detonator of claim 1, wherein said igniter includes an ignition element, and said electronic circuitry comprises a resistance check module.
3. (previously presented) The electronic detonator of claim 1, wherein said igniter includes an ignition element, and said electronic circuitry comprises a continuity check module.
4. (amended) The electronic detonator of claim 3, wherein said electronic detonator includes an ASIC application-specific integrated circuit that contains said electronic circuitry.
5. (previously presented) The electronic detonator of claim 4, wherein said igniter is hermetically sealed, and said ignition element is a bridgewire.
6. (withdrawn) The electronic detonator of claim 1, wherein said igniter includes a firing capacitor, and said electronic circuitry is configured and/or programmed to verify that the firing capacitor has a capacitance above or below a certain value.
7. (previously presented) The electronic detonator of claim 1, wherein said igniter includes a firing capacitor, and said electronic circuitry is configured and/or programmed to verify that the firing capacitor has a capacitance above a first value and below a second value.
8. (canceled)
9. (withdrawn) The electronic detonator of claim 7, wherein said igniter further includes an ignition element, and said electronic circuitry includes a resistance check module.

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element, and said electronic circuitry includes a continuity check module.

11. (previously presented) The electronic detonator of claim 10, wherein said igniter is hermetically sealed, and said ignition element is a bridgewire.
12. (previously presented) An electronically connected system for use in mining or blasting comprising:
  - a) a master device;
  - b) a bus connected to said master device; and,
  - c) a plurality of electronic detonators connected to said bus, each said electronic detonator comprising an igniter and electronic circuitry configured and/or programmed to perform one or more electronic detonator firing-readiness diagnostics.
13. (previously presented) The electronically connected system of claim 12, wherein said igniter includes a firing capacitor, and said electronic circuitry is configured and/or programmed to verify that the firing capacitor has a capacitance above a first value and below a second value.
14. (previously presented) The electronically connected system of claim 13, wherein said igniter further includes an ignition element, and said electronic circuitry includes a continuity check module.
15. (previously presented) The electronically connected system of claim 14, wherein said igniter is hermetically sealed, and said ignition element is a bridgewire.
16. (withdrawn) A method of operating a system of electronic detonators for use in mining or blasting, comprising the following steps:
  - a) providing a master device and a bus connected to the master device;
  - b) issuing one or more commands from said master device on said bus;
  - c) after step b), performing one or more firing-readiness diagnostics on said system.
17. (withdrawn) The method of claim 16, wherein step d) includes the step of performing one or more checks selected from the following group: (1) an incompatible attached device check, (2) an ignition element check, and (3) a firing capacitor capacitance check.

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18. (withdrawn) The method of claim 17, wherein each said electronic detonator comprises an igniter and electronic circuitry configured and/or programmed to perform one or more electronic detonator firing-readiness diagnostics.
19. (withdrawn) The method of claim 18, further comprising the step of performing one or more firing-readiness diagnostics on said electronic detonators before or during step c).
20. (withdrawn) The method of claim 19, further comprising the step of issuing information to said master device from any electronic detonator that fails said firing-readiness diagnostics.
21. (withdrawn) The method of claim 18, wherein said each said igniter is hermetically sealed and includes a bridgewire.

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